

## SAUL JARCHO AS A HISTORIAN OF CARDIOLOGY

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For nearly a quarter of a century, Saul Jarcho was the most prolific historian of cardiology in the United States. Between 1958 and 1976, he published more than 100 annotated extracts from the older literature of medicine in the *American Journal of Cardiology (AJC)*. In his "historical milestones" series, Jarcho reminded a generation of doctors that our current understanding of cardiovascular diseases reflects the efforts of countless clinicians and scientists working in many different cultures and contexts over the centuries.\*

Cardiology was on the eve of an incredible transformation when Jarcho launched his *AJC* series. Several diagnostic and therapeutic approaches, which we now take for granted, had not been invented: coronary care units, selective coronary angiography, coronary artery bypass graft surgery, permanent implantable pacemakers, and prosthetic heart valves, for example. By 1976, when Jarcho published his last *AJC* essay, each of these innovations was available in hundreds of hospitals throughout the United States and around the world. As a clinical specialty, American cardiology had entered a phase of phenomenal growth.† Jarcho's writings provided historical perspective to doctors and medical scientists who were helping to shape the emerging specialty.

Trained in pathology and internal medicine, Jarcho ascribes his interest in specific historical topics to patients he cared for or autopsies he performed. He

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<sup>\*</sup>A comprehensive survey of the history of cardiology is presented in L. J. Acierno, *The History of Cardiology*, Pearl River, NY: Parthenon Publishing Group; 1994. See also W. B. Fye, *Bibliography of the History of Cardiovascular Medicine and Surgery*, Bethesda, MD: National Library of Medicine; 1986.

<sup>†</sup>For the professionalization of cardiology in the United States, see W. B. Fye, *American Cardiology: the History of a Specialty and Its College,* Baltimore, MD: Johns Hopkins University Press; 1996. This volume also discusses the history of the American College of Cardiology, the professional society that sponsored the *American Journal of Cardiology*, which published Jarcho's "historical milestones" series.

acknowledges that his *AJC* essays "ranged freely" over the history of "clinical cardiology and the physiology and pathology of the cardiovascular system." Subjects covered in the series included cardiac diagnosis (with emphasis on auscultation), original or early descriptions of cardiovascular disorders, the pathophysiology of diseases of the heart and circulation, and therapeutics.

Jarcho likes to let authors speak for themselves, but he amplifies quotations from their writings with witty and perceptive comments on the dynamics of observation, experimentation, and discovery. Physicians, medical scientists, and others whom Jarcho invites to journey with him into medicine's past find themselves at once in the company of an energetic archaeologist and a learned tour guide. Jarcho does more than simply identify historical developments, however; he analyses and interprets them. For example, when he published excerpts from Henry Ingersoll Bowditch's mid-19th century papers on thoracentesis in the treatment of pleural effusion, Jarcho emphasized that the Boston physician's contribution represented one of the first "positive therapeutic advances that can be credited to the new physical diagnosis." The widespread adoption of auscultation and percussion during the second quarter of the 19th century helped physicians detect and assess the size of pleural effusions. This, in turn, helped to transform thoracentesis into a safer and more effective treatment.

Reflecting the era in which he was trained and the intellectual tradition of his specialty (internal medicine), Jarcho emphasizes painstaking clinical observation and pathological correlation—the Oslerian tradition.\* In an essay on Charcot and Vulpian's writings on right-sided endocarditis, Jarcho explains that their paper represents "an impressive example of what the conscientious physician can accomplish by simple clinical methods. In this fact lies part of its value for the modern reader." Not surprisingly, Jarcho regrets the progressive decline of the autopsy during the second half of the 20th century.

Several of Jarcho's *AJC* articles dealt with rheumatic heart disease, still a relatively common medical problem a generation ago. He points out that many clinical and pathological features of rheumatic heart disease had been described by the middle of the 19th century, largely as a result of the emphasis that European (especially British and French) physicians placed on clinicopathological correlation.† During the second half of the century, clinical observations and

<sup>\*</sup>For an overview of the history and intellectual tradition of internal medicine, see R. C. Maulitz and P. B. Beeson, The inner history of internal medicine. In: Maulitz RC, Long DE, eds, *Grand Rounds: 100 Years of Internal Medicine*, Philadelphia: University of Pennsylvania Press; 1988:15–540, and K. Faber, *Nosography: the Evolution of Clinical Medicine in Modern Times*, 2nd ed., New York: Paul B. Hoeber; 1930.

<sup>†</sup>The development and consequences of the European tradition of clinicopathological correlation is discussed in R. C. Maulitz, *Morbid Appearances: the Anatomy of Pathology in the Early 19th Century*, Cambridge, England: Cambridge University Press; 1987, and EH Ackerknecht, *Medicine at the Paris Hospital*. 1794–1848, Baltimore, MD: Johns Hopkins Press; 1967.

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autopsy findings were supplemented increasingly by animal experiments designed to elucidate the pathophysiology of various forms of heart disease.\* For example, Jarcho shows how investigators like Edwin Klebs and Ottomar Rosenbach of Breslau performed experiments to help define the function of the cardiac valves in health and disease. These studies helped a later generation of surgeons develop operations to treat stenotic and insufficient heart valves.†

Jarcho stresses repeatedly in his *AJC* series that knowledge about the human body and insights into the pathophysiology of disease accumulate slowly, and practical applications (i.e., diagnostic and therapeutic innovations) often lag by years, decades, or longer. In a series of papers on coarctation of the aorta, Jarcho cites the work (published between 1750 and 1839) of 10 continental physicians and anatomists to bring "into sharp focus the slow processes by which scientific knowledge develops."<sup>5</sup>‡

"The history of many minor diseases—minor to the physician, major to the patient—follows what might be called a life cycle," according to Jarcho. "They first come to attention as curiosities of the dissecting room. Rarity leads to publication. When the publication has taken place before the era of extensive indexes and catalogues, the original description may become forgotten. After a long period of time has elapsed, a surprising technical advance suddenly transforms the obscure rarity into a condition that can be diagnosed and treated."\*

Jarcho illustrated this point in 1969 by translating a paper published more than 150 years earlier by French physician Charles Bougon on coronary artery aneurysms. Jarcho knew that the recent invention of selective coronary angiography (by Mason Sones, Jr, in 1959) and introduction of coronary artery bypass graft surgery (by Rene Favaloro in 1967) had led physicians and surgeons to focus more attention on disorders of the coronary circulation. This, in turn, led to renewed interest in the rare abnormality of these vessels, which Bougon discussed. §

Jarcho's most significant contribution to the history of cardiology is his book,

<sup>\*</sup>An important summary of experimental cardiovascular physiology is found in R. G. Frank, Jr, The telltale heart: physiological instruments, graphic methods, and clinical hopes, 1854–1914. In: W. Coleman, F. L. Holmes, eds, *The Investigative Enterprise: Experimental Physiology in 19th-Century Medicine*, Berkeley, Calif: University of California Press; 1988: 211–290.

<sup>†</sup>The definitive history of cardiac surgery is H. B. Shumacker, Jr, *The Evolution of Cardiac Surgery*, Bloomington, Ind: Indiana University Press; 1992.

<sup>‡</sup>An impressive study of the incremental expansion of new knowledge through observation and experimentation and the lag between discovery and practical application of research findings (in the form of new treatments for cardiovascular disease) is found in J. H. Comroe, Jr, and R.D. Dripps, *The Top 10 Clinical Advances in Cardiovascular-Pulmonary Medicine and Surgery 1945–1975*, Washington, DC: US Government Printing Office; 1978.

<sup>§</sup>See also W. B. Fye, Coronary arteriography: it took a long time, Circulation, 1984;70: 781–787.

The Concept of Heart Failure from Avicenna to Albertini.<sup>7\*</sup> This handsome quarto includes selections from the writings of 20 physicians originally published between the 16th and early 18th centuries. Joshua Leibowitz, author of a classic monograph on the history of coronary heart disease, proclaimed Jarcho's book "monumental" and noted that it contains "some flashes of wit joined with scholarship."<sup>8</sup>

The format of Jarcho's book is similar to that of his *AJC* series: each section includes an introduction, excerpts from the original work (translated into English if necessary), and a scholarly commentary. The text reveals Jarcho's sophistication in linguistics, history, pathology, and clinical medicine—a rare (and vanishing) combination. The better-known authors included in the book are Avicenna, Fernel, Fabricius, Malpighi, Baglivi, and Vieussens. There are sections by and about several lesser-known writers, whose contributions might have been overlooked were it not for Jarcho's erudition and familiarity with the older literature of medicine.

Describing the gradual recognition of the clinical condition now termed heart failure, Jarcho argues that a "unified and centralized concept of heart failure was established" in the early 18th century. Before then, the various signs and symptoms we now attribute to cardiac dysfunction were considered "individual clinical entities" (p. vii). The excerpts Jarcho selected demonstrate the difficulty physicians had in differentiating cardiac dyspnea from shortness of breath caused by lung disease. He concludes his survey with the observations of Ippolito Albertini (1662–1738), who "filled out the anatomical and clinical picture of congestive heart failure and created the rudiments of diagnostic criteria" (p. 371). Jarcho's book is an outstanding contribution.

In terms of historiography, Jarcho emphasizes the contributions of individuals and relies mainly on published texts. Speaking of the inventor of mediate auscultation and his 1819 monograph on the technique, Jarcho writes, "Laennec was a great man, and his book was a great book." Rhetoric like this annoys some social historians, who argue that medical history has focused on "great doctors" for too long. A long-time member (and former president) of the American Association for the History of Medicine, Jarcho is familiar with the tensions that have developed in medical history as the field has become professionalized in recent decades.† The rumblings irritate Jarcho. He views medical history as a fertile

<sup>\*</sup>See also J. Nolan, A historical review of heart failure, Scott Med J, 1993;38:53-57.

<sup>†</sup>See, for example, S. Reverby and D. Rosner, Beyond "the great doctors." In: S. Reverby, D. Rosner, eds, *Health Care in America*, Philadelphia: Temple University Press; 1979:3–16. Three brief (but intense) essays reveal the stresses that developed in medical history as a result of its professionalization: L. G. Wilson, Medical history without medicine, *J Hist Med Allied Sci*, 1980;35:5–7; H. S. Berliner, Book reviews, *Bull Hist Med*. 1980;54:131–134; and L. G. Stevenson, A second opinion, *Bull Hist Med*. 1980;54:134–140. See also J. H.

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field, with opportunities for workers of various intellectual traditions who use different tools and techniques to study and interpret the past. Jarcho argues that clinician-historians have a special responsibility to remind doctors of their profession's history and help them understand it. He has taken this responsibility seriously and is not apologetic about his approach.

A seasoned scholar who knows how to provoke, as well as educate and entertain, Jarcho challenges his readers to think about historical issues and issues of historiography. He decries the recent tendency of some historians to devalue biographical studies and chronological narratives. "During the last few decades," he wrote in 1980, "the determination of chronological priority has become somewhat unfashionable among serious scholars of medical history and has been demoted to the category of trivia." Jarcho continues, "While finding no fault with this vagary of taste or judgement, I feel obliged to recognize that readers and devotees of medical history, as distinct from indurated medical historians, do not share it. Indeed, not a few respectable readers will insist on knowing whether Vieussens or Lancisi was the first to understand the essentials of congestive heart failure" (p. 369).<sup>7</sup>

One notable feature of Jarcho's publications on the history of cardiology is his command of languages. In his book on heart failure and in the *AJC* series, he translated works from French, Italian, German, and Latin. Sometimes, Jarcho was tempted to translate English works as well. Describing an 1844 essay by Guy's Hospital physicians Henry Hughes and Edward Cock, Jarcho complains: "The ponderous style, overladen with subordinate clauses and plethoric with modifying phrases, reminds the American reader of his unreadable compatriot James Fenimore Cooper. Hacking our way through the syntactical forest, we emerge at last into a clearing and find that the arduous journey is both rewarded and ended." <sup>10</sup>

For half a century, Jarcho has worked tirelessly to remind us of the relevance of our past. A bibliophile and literary archeologist, he finds his inspiration and gains valuable perspective from sources that less industrious scholars would ignore. Jarcho has mined libraries and archives for nuggets of knowledge and wisdom for decades. His intellectual curiosity and the "fun of the hunt" led him beyond the serenity and comfort of the main reading rooms of well-known libraries into dusty corners, dim closets, and damp basements. Using this ap-

Cassedy, Diversity and professionalism in American medical history: the AAHM in the 1980s, *Bull Hist Med.* 1985;59:390–394; R. L. Numbers, The history of American medicine: a field in ferment, *Rev Am Hist*, 1982;10:245–263; and G. H. Brieger, History of medicine. In: P. T. Durbin, ed, *Guide to the Culture of Science, Technology, and Medicine*, New York: Macmillan Publishing Co; 1980:121–194.

proach, Jarcho identified and analyzed the contributions of a host of secondary (and largely forgotten) figures.

Jarcho emphasizes that our knowledge of the activities and attitudes of former generations of doctors and medical scientists is limited by the sources that have survived. Writing about the German clinician Johann Lucas Schoenlein, Jarcho explains that he was "saved from oblivion by an eponym, the incoherent lecture notes of his students, the reminiscences of a few contemporaries and the essay of a sympathetic historian." "Among the pleasures and obligations of historical writing," Jarcho wrote 38 years ago, "not the least important is the resurrection of forgotten treasures of the past. Cardiology is especially rich in its heritage, much of which deserves to be rescued from oblivion." Elsewhere, he explains, "Poets, essayists, novelists, and biographers have endlessly reminded us that the great achievements of great men and the lesser achievements of lesser men tend to be overtaken by oblivion."

Studying history stimulates humility—at least it should. An erudite and energetic clinician-historian, Saul Jarcho has done much to illuminate cardiology's rich past.

## REFERENCES

- 1. Jarcho S. William G. MacCallum on the teaching of pathologic physiology (1906). *Am J Cardiol*. 1974;34:577–579.
- 2. Jarcho S. Henry I. Bowditch on pleuritic effusions and thoracentesis (1852). *Am J Cardiol*. 1965;15:832–836.
- 3. Jarcho S. Right-sided ulcerative endocarditis recognized ante mortem. *Am J Cardiol*. 1961;7:253–261.
- 4. Jarcho S. *Intra vitas* diagnosis of aortic coarctation (Mercier, 1839). *Am J Cardiol*. 1965; 16:253–255.
- Jarcho S. Coarctation of the aorta (Meckel, 1750; Paris, 1791). Am J Cardiol. 1961;7: 844–852.
- 6. Jarcho S. Bougon on coronary aneurysm (1812). Am J Cardiol. 1969;24:551-553.
- 7. Jarcho S. The Concept of Heart Failure from Avicenna to Albertini. Cambridge, Mass: Harvard University Press; 1980.
- Leibowitz JO. Review of S. Jarcho. The concept of heart-failure. Bull Hist Med. 1982; 56:129–131.
- 9. Jarcho S. Thomas Jowett on pericardiocentesis (1827). Am J Cardiol. 1973;31:273-276.
- 10. Jarcho S. Hughes and Cock on thoracentesis (1844). Am J Cardiol. 1963;12:853-859.
- 11. Jarcho S. Schoenlein on hydrothorax (1832). Am J Cardiol. 1969;24:234-236.
- 12. Jarcho S. An encyclopedic treatise on embolism (Bernhard Cohn, 1860). *Am J Cardiol*. 1960;6:1089–1093.
- 13. Jarcho S. Arrhythmia in disease of the heart valves (Adams, 1827). *Am J Cardiol*. 1968; 21:901–906.